

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/20/98

Date Received: 01/06/98

Project: Acid Tanks

Date Extracted: 01/13/98

Date Analyzed: 01/14/98

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>M59581 A</u>	<u>M59581 B</u>	<u>Method Blank</u>
Analyte:			
Arsenic	63	61	<20
Cadmium	<5	<5	<5
Chromium	15,000	5,200	<5
Lead	20	<20	<20
Silver	<5	<5	<5
Copper	1,600	2,600	<5
Nickel	13,000	8,000	<5
Zinc	16	12	<5
Iron	65,000	40,000	<5

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**QUALITY ASSURANCE RESULTS
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Laboratory Code: 801013-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Arsenic	mg/l (ppm)	63	62	2	0-20
Cadmium	mg/l (ppm)	<5	<5	nm	0-20
Chromium	mg/l (ppm)	15,000	14,000	7	0-20
Lead	mg/l (ppm)	20	20	0	0-20
Silver	mg/l (ppm)	<5	<5	nm	0-20
Copper	mg/l (ppm)	1,600	1,600	0	0-20
Nickel	mg/l (ppm)	13,000	13,000	0	0-20
Zinc	mg/l (ppm)	16	14	13	0-20
Iron	mg/l (ppm)	65,000	64,000	2	0-20

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Arsenic	mg/l (ppm)	100	108	112	80-120	4
Cadmium	mg/l (ppm)	50	114	117	80-120	3
Chromium	mg/l (ppm)	50	111	114	80-120	3
Lead	mg/l (ppm)	100	112	115	80-120	3
Silver	mg/l (ppm)	20	75 vo	82	80-120	9
Copper	mg/l (ppm)	50	104	110	80-120	6
Nickel	mg/l (ppm)	100	112	114	80-120	2
Zinc	mg/l (ppm)	50	114	116	80-120	2
Iron	mg/l (ppm)	100	105	106	80-120	1

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

vo - The value reported fell outside the control limits established for this analyte.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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January 20, 1998

**Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134**

Dear Mr. Thompson:

**Included are the results from the testing of material submitted on January 6, 1998
from your Acid Tanks project.**

**We appreciate this opportunity to be of service to you and hope you will call if you
should have any questions.**

Sincerely,

FRIEDMAN & BRUYA, INC.



**Kurt Johnson
Chemist**

**Enclosures
ACU0120R.DOC**